

INDUSTRIAL LEVEL QUALIFICATION REQUIREMENTS FOR MCM PRODUCTS ¹

Stress Test	Conditions	Duration	QFN Qty	IPowIR Qty/lot	IPM Qty/lot	MER Qty/Lot
Preconditioning	Minimum MSL 3 required per JESD22-A113	N/A	77	77	N/A	N/A
Temp Cycle	-40°C to 125°C, or -65°C/150°C 30 minute cycles, no bias	1000 or 500 Cy	3X77	3X77	8x3	3X77
Autoclave	121°C/100%RH/15PSIG, no bias	96 Hr	3X77	NA	8x3	3X77
THB	85°C/85%RH, bias	1000 Hr	3X77	3X77	8x3	3X77
HTSL	Ta=150°C or Ta=175 °C No Bias	1000 Hr or 500 Hr	3X77	3X77	8x3	n/a
LTSL	Ta=-40°C, no bias	168 Hr	n/a	n/a	8x3	n/a
IOL	Delta Tj = 90C, not to exceed Hottest die Tjmax	10,000 cycles	3X77	40	8X3	3X77
HTOL/HTB Test @ R (all time-points)	Tj=max rated (150°C) or <i>Tj=max rated (125 °C), bias</i>	500 Hr or <i>1000 Hr</i>	3X77	40	8x3 ²	n/a

- 1 – Family data may be used to qualify one or more products
2- HTOL Not Required for IPM products unless requested

PRECONDITIONING REQUIREMENTS

Minimum MSL3 preconditioning per JESD22-A113 is required for surface mount capable devices that are put on TC, THB/HAST, and AC.

FAILURE CRITERIA

All devices parameters must pass the data sheet specification requirements.